

REMARKS

Status of Claims:

Claims 5 and 16 are cancelled. New claim 28 is added. Thus, claims 1-4, 6-15, and 17-28 are present for examination.

Interview Summary:

On January 5, 2006, attorney for applicant Justin Sobaje called Examiner Wang to ask about the following issues that were not clear in the Office Action of November 30, 2005: (i) the status of claims 25-27; (ii) the status of claims 9-10; and (iii) which Sudo et al. patent was referred to in the rejection.

Examiner Wang stated the following: (i) he learned from Examiner Liu that claims 25-27 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims; (ii) claims 9-10 probably would be allowable if rewritten in independent form, but he must check them again; and (iii) Sudo et al. probably refers to U.S. Patent No. 6,363,101.

Examiner Wang further stated that he would issue a Supplemental Office Action to correct the omissions and that he would reset the time for replying to the Office Action.

No exhibits were shown and no demonstrations were conducted during the interview. No prior art was discussed except to discuss which Sudo et al. patent was referred to in the rejection. No other pertinent matters were discussed.

Allowable Subject Matter:

Applicant expresses appreciation to the Examiner for the indication that claims 9, 10, 20, 21, and 25-27 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 25 has been amended to be independent and to include all of the limitations of the previous base claim 1. Claim 25 has been further amended for clarity. Therefore, claim

25, as amended, is believed to be allowable. Because they depend from claim 25, dependent claims 26-27 are believed to be allowable for at least the same reasons that claim 25 is believed to be allowable.

Claim Objections:

Claims 2-4, 8, 13-15, 19, and 24 are objected to because of the informalities noted on pages 2 and 3 of the Office Action.

Claims 2-3, 8, 13-14, 19, and 24 have been amended in accordance with the Examiner's suggestions.

Claim 4 has been amended to depend from claim 2 and, thus, recites "the" operation rather than "an" operation. The operation has antecedent basis in claim 2.

Claim 15 has been amended to depend from claim 13 and, thus, recites "the" operation rather than "an" operation. The operation has antecedent basis in claim 13.

Claim Rejections:

Claims 1-4, 8, 11-15, 19, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. (U.S. Patent No. 6,363,101) (hereinafter Sudo) in view of Nakajima et al. (U.S. Patent No. 5,487,083) (hereinafter Nakajima).

Claims 6, 7, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo and Nakajima and further in view of Ishikura (U.S. Patent No. 5,239,684).

With respect to claims 1-4, 6-8, 11-15, 17-19, and 22-24, as amended, the rejections are respectfully traversed.

Independent claim 1, as amended, recites a receiving terminal for a CDMA system, comprising:

"a finger circuit having a plurality of finger circuit elements, each of said plurality of finger circuit elements for making a correlation between a received signal from a radio circuit connected to an antenna and a known

signal and for outputting a correlated received signal as a result of the correlation; and

a rake circuit for combining the correlated received signals output from the plurality of finger circuit elements to provide a synthesized received signal;

wherein the rake circuit includes a level judgment circuit for executing electric field level judgment based on the correlated received signals output from the plurality of finger circuit elements and a predetermined threshold level; and

wherein an operation of at least one finger circuit element of the plurality of finger circuit elements can be suspended for a fixed, predetermined time period according to the result of the electric field level judgment.” (Emphasis Added).

A receiving terminal including the above-quoted features has at least the advantages that: (i) a finger circuit has a plurality of finger circuit elements, where each of the plurality of finger circuit elements allows for making a correlation between a received signal from a radio circuit connected to an antenna and a known signal and for outputting a correlated received signal as a result of the correlation; (ii) a rake circuit allows for combining the correlated received signals output from the plurality of finger circuit elements to provide a synthesized received signal; (iii) the rake circuit includes a level judgment circuit for executing electric field level judgment based on the correlated received signals output from the plurality of finger circuit elements and a predetermined threshold level; and (iv) an operation of at least one finger circuit element of the plurality of finger circuit elements can be suspended for a fixed, predetermined time period according to the result of the electric field level judgment. (Original Specification; page 8, line 26 to page 9, line 21; page 10, line 13 to page 14, line 9; FIGs. 1, 2, and 7).

Neither Sudo nor Nakajima, alone or in combination, disclose or suggest a receiving terminal in which a rake circuit is capable of combining correlated received signals output from a plurality of finger circuit elements to provide a synthesized received signal and in which the rake circuit includes a level judgment circuit for executing electric field level judgment based on the correlated received signals output from the plurality of finger circuit elements and a predetermined threshold level. The Examiner points to the finger circuits 402,

404, and 406 in FIG. 13 of Sudo as disclosing a plurality of finger circuit elements. The Examiner then points to column 8, line 25 to column 11, line 27 of Sudo as disclosing a rake circuit for combining the correlated received signals output from the plurality of finger circuit elements 402, 404, and 406.

However, the finger circuits 402, 404, and 406 are not even discussed in column 8, line 25 to column 11, line 27 of Sudo. Rather the combining of the demodulated outputs of each of the finger circuits 402, 404, and 406 is discussed in column 12, lines 10-16 of Sudo. The finger circuits 402, 404, and 406 in the device of Sudo provide demodulated outputs. (Sudo; column 12, lines 10-16). Then, in the device of Sudo, the combining circuit 409 combines skews of demodulated outputs of each of the finger circuits 402, 404, and 406 and performs the path combining diversity to be supplied to the demultiplexing unit 41. (Sudo; column 12, lines 10-16; FIG. 13). Thus, the outputs of the finger circuits 402, 404, and 406 in the device of Sudo are combined by the combining unit 409. (Sudo; FIG. 13).

The Examiner then points to column 8, line 25 to column 11, line 27, column 12, lines 50-61, and column 13, lines 20-67 of Sudo as disclosing that the rake circuit of Sudo “includes a level judgment circuit for executing electric field level judgment based on the dispreading signals output from the plurality of finger circuit elements and a predetermined threshold level”. (Office Action; page 4) (Emphasis Added).

However, the rake circuit of Sudo does not include a level judgment circuit for executing electric field level judgment based on the dispreading signals output from the plurality of finger circuit elements 402, 404, and 406 and a predetermined threshold level. The Examiner does not indicate what is considered to be the level judgment circuit in the device of Sudo for executing electric field level judgment based on the dispreading signals output from the plurality of finger circuit elements 402, 404, and 406. Applicant assumes that the Examiner thinks that the PN code phase calculator 46 of the device of Sudo is the level judgment circuit.

However, the PN code phase calculator 46 in the device of Sudo does not execute electric field level judgment based on the dispreading signals output from the plurality of

finger circuit elements 402, 404, and 406. (Sudo; FIG. 1). Indeed, as is evident from FIGs. 1 and 13 of Sudo, the demodulated outputs of each of the finger circuits 402, 404, and 406 are only provided to the combining unit 409 and are never even provided to the PN code phase calculator 46. (Sudo; FIGs. 1 and 13). The PN code phase calculator 46 merely receives stored waveform data from the waveform storage means 45 and calculates a PN code phase of the stored waveform data to obtain an indication value i for a phase deviation. (Sudo; abstract; column 8, lines 6-8 and 24-30). Such a calculation by the PN code phase calculator 46 in the device of Sudo is not based on the demodulated outputs of the finger circuits 402, 404, and 406. This is further evident because the PN code phase calculator 46 calculates the PN code phase during a time period t_3 , while operation of the rake demodulation unit 40 that includes the finger circuits 402, 404, and 406 is stopped during the period t_3 , so the finger circuits 402, 404, and 406 would not even be providing outputs at that time. (Sudo; abstract; column 11, lines 55-59).

Moreover, Nakajima does not cure the deficiency with respect to the teaching of Sudo, because the Examiner merely points to Nakajima for the proposition that, “dispredding with PN code is a correlation”. (Office Action; page 4). Since the calculation by the PN code phase calculator 46 in the device of Sudo is not based on the demodulated outputs of the finger circuits 402, 404, and 406 that are combined by the combining unit 409, it is irrelevant whether or not dispredding with PN code is a correlation.

Therefore, independent claim 1, as amended, is neither disclosed nor suggested by the Sudo and Nakajima references and, hence, is believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Independent claim 11 recites a receiving terminal with features similar to features of a receiving terminal of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable.

Independent claim 12, as amended, recites a receiver with features similar to features of a receiving terminal of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable.

Independent claim 22 recites a receiver with features similar to features of a receiving terminal of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable.

Independent claim 23 recites a receiving method with features similar to features of a receiving terminal of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable.

Independent claim 24, as amended, recites a receiving method with features similar to features of a receiving terminal of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable.

The dependent claims are deemed allowable for at least the same reasons indicated above with regard to the independent claims from which they depend. It is also noted that, with regard to dependent claims 6, 7, 17, and 18, Ishikura does not cure the deficiencies with respect to the teachings of Sudo and Nakajima discussed above.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

Since the same primary reference has been cited in the present Office Action as in the previous Office Action, and since a new Examiner has been assigned to the case, applicant requests an interview with the Examiner in order to expedite prosecution of the present application. In the interview, applicant would like to discuss the references and arguments addressed in the present remarks.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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